

THE HARBOUR WORKS.

Conference between the Harbour Commissioners, City Council and Board of Trade,
relative to the proposed improvements in
THE HARBOUR OF QUEBEC.

The conference between the Harbour Commissioners, City Council and Board of Trade, on the subject of the new Harbour Works; took place on Tuesday the 18th January 1887, at the Harbour Commissioners office, and lasted nearly three hours.

Amongst those present were His Worship the Mayor, Alderman Hearn, Alderman Chouinard, Alderman Rinfret, Councillor Chambers, Councillor Duquet, Councillor McGreevy, Councillor Aylwin, Councillor Tessier, Councillor Vincent, Councillor Murphy, Councillor Plamondon, and Councillor Barbeau; the following members of the Harbour Commission, Messrs. J. Bell Forsyth, J. Chabot, F. Hamel, E. Giroux and R. H. Smith, together with A. H. Verret, Secretary, and Mr. Boswell, Engineer in charge of the works. The Government, Engineer, Mr. Perley, of Ottawa, and the City Engineer, Chas. Baillairgé, Esq., were also present, as well as the following delegates from the Board of Trade: — Joseph Shehyn, Esq., M. P. P., President, and Messrs. P. Vallière, R. Turner, Owen Murphy, B. Verret, Simon Peters and F. H. Andrews, Secretary. Mr. Gourdeau, Harbor Master, and others.

The acting chairman, Mr Forsyth, arose and said : Mr Mayor and gentlemen, I regret to inform you that our chairman is not here to-day and my friends of the Harbour Commission have asked me to preside.

I do not think it necessary for me to say much on this occasion. You know there were three plans submitted to the Harbour Commissioners for the proposed works. We adopted one of them and after considerable discussion advertised for tenders. Our chairman, Mr Dobell, and others mentioned to us that there were certain objections raised by citizens of Quebec. I think all our interests are identical and we all wish to work for the good of our port, hence the arranging for this conference to-day between the Mayor, Aldermen and Councillors, the president of the Board of Trade and Council and the Harbour Commissioners. I do not consider it necessary for me to say anything more just now but to hear whatever objections may be raised to the present plan, also Mr Perleys views and explanations on those plans which he has submitted to us and which we have adopted.

His Worship Mayor Langelier: We are all very thankful to the Commissioners for the invitation to meet them and discuss a subject like that of improvements in the Harbour of Quebec. We are all agreed upon one point, and that is that the improvements now being executed must be such as to accommodate the shipping now coming to the St Lawrence or which may be expected to arrive in this river at no distant period.

The tendency at the present age is to build very large steamers. Some years ago the necessity of this was questionable. We have seen here a very large steamer the "*Great Eastern*" and at that time it was thought a great piece of extravagance to build such vessels, but subsequent events show that that idea

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is now being taken up by the trade. There is at present running between Liverpool and New-York a steamer nearly as long as the *Great Eastern*, the "City of Rome" and nobody pretends that she is the extreme limit for the size and tonnage of steamers. The Harbour Works here must therefore be such as to accommodate steamers of the largest size, and I have already insisted on that point in the House of Commons two years ago. When it was proposed to give a new contract for the mail service I opposed the same because as I said it would kill the St-Lawrence route taking as a basis of speed and size such vessels as the "Sardinian" for instance. All those who have been accustomed to superior steamers would leave this route and go by New-York as they are in fact doing now. If these works could not accommodate the steamers which we must expect to come here in a short time, they would be worse than useless. If we were to say "here is the extreme limit and capacity of our Harbour" it would be advertising abroad that we could not afford accommodation to the large steamers now being built, and the consequence would be practically closing the St. Lawrence route to passenger and other traffic. Those works must be sufficient to accommodate the largest ship that may be built.

I think the idea in the public mind seems to be shared by the gentlemen of the Harbour Commission, judging from the letter which they have caused their Secretary to write to the Quebec Board of Trade. I find in the conclusion of that letter the following words: "In conclusion, I am directed to state that after its completion the Wet Dock will be able to receive vessels drawing 28 feet." This is stating in so many words that the Harbour Commissioners themselves admit the necessity of having a Wet Dock in which ships drawing 28 feet of water can be accommodated.

Some doubt has been raised as to whether the works con-

templated, those executed and those in contemplation are of a character to accommodate ships drawing 28 feet of water. I will at once endeavour to lay these doubts before the gentlemen representing the Harbour Board here to day. I must say that in the plans which have been prepared under the superintendence of Mr Perley, the entrance to the Wet Dock is deep enough to provide for ships of the description already mentioned. The entrance according to Mr. Boyd will leave 30 feet in the sill with a 12 feet tide, and 28 feet with a 10 feet tide, and, as Mr. Boyd remarks, the 10 feet tide is a thing of very rare occurrence. With a tide of 12 feet which is comparatively a thing of unfrequent occurrence, the depth of water on the sill would be 30 feet which is plenty, I understand, to accommodate ships drawing 28 feet of water. Is the rest of the dock now of the same description? Will a ship which shall have been able to pass the entrance have sufficient depth to go through any part of the Wet Dock? If not, in my mind it is useless to have such a deep entrance, if the rest of the dock is not proportionately as deep, and we may at once give up the idea of expecting to accommodate the class of large shipping which we anticipate to see here.

The letter before mentioned is not very clear. It says that after its completion the Wet Dock will be able to receive vessels drawing 28 feet. This is not altogether satisfactory and is open to two constructions. One construction which might be satisfactory to us all is this that the wholospace of the dock can be filled up with vessels drawing 28 feet of water. But the sentence is open to another construction, which is that only one or two vessels drawing 28 feet of water could be accommodated. This latter would be quite unsatisfactory. Supposing, for instance, that only one or two ships could be accommodated alongside the cross-wall. I understand it is deeper alongside the new cross-wall than at the Louise Embankment. and I am informed that no more than two large steamers

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can be moored alongside the new cross-wall. If that is the meaning of the sentence I am commenting on, I do not think this will satisfy the public mind to have a wet dock that will not accommodate more than two ships drawing 28 feet of water in any portion of it.

The sentence seems to have that meaning if we compare the letter in question with the report of Mr Boyd which is appended to it and which I have here. According to that report, there are only from ten to eleven feet of water alongside the Louise Embankment, which, with a 12 feet rise of the tide would give only 22 feet. I think all the calculations should be based on that tide as we ought not to make our calculations on the highest tide that occurs.

If we take a 12 feet tide as a basis, this would give, as I said before only 22 feet alongside that immense wall which is now constructed. I think every one must admit that 22 feet is entirely too little to accommodate the present shipping or the shipping which we expect to receive in that dock. They have now a channel between Quebec and Montreal for ships drawing 25 feet of water. We were some time ago invited to come down in the steamship *Peruvian*, when means were taken to show that there was that depth of water there, and as every one knows, the Harbour Commissioners of Montreal are taking steps to have the channel from Quebec to Montreal able to let ships go up drawing 27½ feet of water.

If we cannot accommodate ships of this draught when they can get it in Montreal, we might as well close up those works at once, as the ships will certainly not stop at Quebec, but go on to Montreal. I think it would be a waste of money to spend it on works that cannot accomodate such steamers.

There is the new wall which it is now proposed to build and

for which, I understand tenders have been asked and received, but no contract awarded yet. According to the answer Mr Boyd has made to some of the questions put by the Council of the Board of Trade, there will be only 10 feet of water at low water alongside that new wall. With a 12 feet tide, which must be taken as a basis, this would only give 22 feet again. Well, 22 feet is entirely insufficient. As I said before, we have already a great many steamers drawing more than 22 feet of water when fully loaded; so we have not only works executed which are insufficient, but it is proposed to build another work which would be more insufficient still. That is what has excited so much uneasiness in the public mind.

When the rumour was spread that the works already executed could not accommodate ships drawing more than 22 feet, it caused me great surprise, and I may say a great surprise and disappointment to 99 out of 100 of the whole population of Quebec and Levis, and, it will be worse than a surprise now, if it is learned that the work which it is contemplated to execute, will not accommodate ships of more draught of water than 22 feet.

Mr Boyd says again that the Basin may be dredged to a depth which will give 25 feet, but this can be only done 50 feet from the wall in question. I am not engaged in shipping, but I do not see what use it would be if we are to lay vessels 50 feet from the wharf. We may as well remain in the St Lawrence which can give us plenty of that kind of accommodation, 25 feet of water 50 feet from the wharf.

It is stated in the answer in question that, if the Basin is dredged to 15 feet, it would give 27 feet of water with a 12 feet rise of tide; but we could not get alongside the wharves by dredging that depth. It is impossible to dredge alongside the walls in question in order to obtain that depth which in

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my mind would not even be sufficient. This is a very serious feature, and in fact one ruinous to the prospects of the success of these works, and to the hopes for the prosperity of the trade of Quebec that we had based upon the construction of these improvements. I repeat, if it is learned abroad that we cannot give accommodation to ships drawing more than 22 or 24 feet of water, it will be very damaging to the reputation of the works and the Harbour in general.

These are the ideas existing now in the public mind, and I understand the object of this interview is to set at rest those disturbing rumours. I have stated to the Chief Engineer of the Harbour Commissioners the objections which prevail against this work as already executed or contemplated, if we are to take the document set before us. I trust that I may be mistaken and others with me who read the document as I do.

What we desire is to have the same depth of water all over the dock as is provided for at the entrance. It is useless to have such a deep entrance with a shallow dock behind it. We do not care for the amount of money it will cost,—of course the less expenditure the better—but it would be false economy to try and save \$2 or 300,000 and have an inefficient dock, rather than spend that amount and have a dock which would bring to Quebec the prosperity so desired. (applause).

Joseph Shehyn, Esq., President of the Board of Trade, arose and said :—

Mr Chairman and gentlemen,

My intention on the present occasion, is not to make any lengthy remarks, as His Honor the Mayor has covered so much ground and done so well. My duty will therefore simply consist in putting a few questions to the Chairman and Engineer and, with your permission, I will submit them.

It is quite superfluous to say what we expect from the Harbour Works. That has been pointed out very clearly by the Mayor.

These plans originated 10 years ago and what views we may have had in our minds, then have been very much changed since. There has been a certain amount of correspondence exchanged between the Board of Trade and Harbour Commission on this subject. In the course of the correspondence, we got a letter from the Harbour Commission dated 13th Dec. 18 6. In the first clause they say: "There being 18 feet of water below low-water mark (zero) above the sill of the entrance gate into the Wet Dock, the cross-wall itself has consequently been constructed to accommodate the largest steamers both inside and outside."

Mr. Shehyn here, put the following questions to Mr. Perley the Government Engineer.

Question.—What is the depth of water at low-water mark, alongside the wall of the cross-wall within the Wet Dock to the bottom of the sand?

MR PERLEY. Answer :—If I had Mr Boswell here with the plans, he could give that.

Mr Boswell entered and in reply to Mr Perley answered to the above question :

Fifteen feet.

Question.—What is the depth of water at low water mark alongside this wall within the Wet Dock provided for in the design and construction of this work?

MR PERLEY Answer.—Fifteen feet.

Question.—When were the cribs for this wall sunk in position ?

Answer.—In the latter part of the summer of 1884 they were sunk—three of them.

Question.—In the second part of the letter, of the Commissioner's above referred to, they say : " If it become desirable " to dredge to the depth of 15 feet, the whole of the line " of the Quay wall, Wet-Dock, this can be done by driving " a close piling alongside the present wall. This work " would not be expensive, and would enable the Commissio- " ners to dredge that portion of the Dock to a uniform depth " of 15 feet. The whole Quay wall so piled and dredged " would give accommodation to the largest vessels. "

Could this close piling alongside the Quay wall to provide 15 feet of water at low water mark alongside it, be made without risk to the stability and permanency of the structure ?

ANSWER.—There are two points in that question. By the Quay wall, I presume you mean that portion of the Louise embankment in contra-distinction to the cross-wall. That wall was built according to plans prepared some 10 years ago, and that work has been built and finished, and I think only for a depth of 10 feet at low water. It is built on a sand foundation. To reduce the depth below 15 feet without close piling would render that wall unsafe and unstable.

To the second part of the question, I say that, that close piling can be done without risking the stability or permanency of the structure, because it would add to its permanency and stability.

QUESTION.—What would be the cost of this pile work ?

MR PERLEY ANSWER.—From 10 to \$12 a running foot,—\$22,500 or \$25,000.

QUESTION.—Will the piles go down below the foundation of the crib work ?

ANSWER.—Oh yes, very far,—perhaps 10, 12, 15 feet.

QUESTION.—If so, will there not be danger of the sand being washed out from under the foundation of the Quay wall ?

ANSWER.—No, because I would not take out a bit of sand in front of it, not within 40 or 50 feet from the piles. If that sand was taken out, we would have to put clay in its place. If you took that out you would have a pressure against those piles and a chance of spewing as it were from the weight of the Embankment forcing the piles out. The foundations do not go down so deep as to permit dredging as close as that.

QUESTION.—You would be able to dredge close up, to the piling ?

ANSWER.—I would not dredge within 40 to 50 feet of it.

QUESTION.—Is it the decision of the Commissioners to so pile drive the Quay Wall and to dredge the Wet Dock to a uniform depth of 15 feet at once, or to allow this to stand over to a future period ?

M. Forsyth. Answer—That has not been discussed—the subject has not been taken up yet.

Question.—So this is merely a supposition that if it is required it could be done ? It is not contemplated at present ?

Answer.—It has been spoken of and discussed but there has been no action taken in the matter, and we have before this had Mr. Perley's views on the matter. No decision has been arrived at.

Question.—If necessary, could this close piling be made alongside the Quay Wall so as to provide 18 feet of water at low water mark?

Mr. Perley. Answer.—Yes, because you would only drive the piles to suit.

Question.—But always 40 to 50 feet from the wall?

Answer.—Always 40 to 50 feet.

Question.—What was the object in providing 18 feet at low water mark above the sill of the entrance gate into the Wet Dock?

Answer.—It was to provide for the future, for the expansion of trade, and increase in size of vessels. It was thought wise to put it in at 18 feet because with 12 feet tide that gives 30 feet which is greater than any vessels require coming here; and once there it is there for ever. The entrance works once in they never could be altered. That was thought advisable and desirable and that matter was brought to the Commissioners' notice, and for that reason the entrance works were put in.

QUESTION.—Was it with the intention of giving the same uniform depth within the Wet Dock?

ANSWER.—No. The first depth was 10 feet at low water according to the original plans by Knipple and Morris. Before the Cross Wall was commenced the matter was discussed and everything was taken to 15 feet owing to change of circum-

tances, giving 27 feet draught, which was about equivalent to the draught that will be had between here and Montreal — that is the least draught between here and Montreal after the channel is completed. I may say the upper side of the Cross Wall, both sides, were put in for a depth of 18 feet below (zero). All that was done with the view of the future.

Question.—Then it is not the intention of the Harbour Commission to dredge inside that Basin to 18 feet of water, but to 15 feet only ?

MR. FORSYTH.—There is no decision come to.

MR. PERLEY.—There is a certain strip of a certain width of the Basin that has been dredged by Peters, Moore and Wright all along the whole length of the Quay Wall. That was a dredge of 10 feet. It was intended to put that portion only to 15 feet.

Question.—In providing for this depth of water over the sill of the entrance gate, what was the object in view since the same depth cannot be given alongside the Quay Wall ?

Answer.—The reason was that it would give the same depth alongside the Cross Wall. The presumption was that vessels of a very large size would not occupy the Dock at the same time, while the other portion of the Dock could accommodate the vessels of a smaller size.

Question.—Do not the original plans provide for 15 feet at low water mark above the sill of the entrance gate ?

MR. PERLEY.—I never saw any details. I do not know that I ever saw the original plans at all. The cross wall plans are designed entirely by us. I do not think I ever looked at Knipple and Morris' plans.

Question.—When were the plans changed to provide for 18 feet?

Answer.—At the time the contract was let for the cross wall in '84. There has never been any change.

Question.—We were under the impression that the original plans, which you say you have not seen, were providing for less water than 18 feet and that when you gave the contract for the cross wall it was changed from 14 or 15 to 18 feet, if I am not mistaken?

MR. PERLEY.—The original depth in the cross wall contract was 15 feet and before we got on with the work we dropped the bottom of the entrance to 18 feet.

Question.—In the third part of the letter received from the Commissioners' it states "that after its completion the Wet Dock will be able to receive vessels drawing 28 feet."—I would like to ask where will vessels of this draught of water be received and how many will be accommodated at the same time?

Answer.—Vessels drawing 28 feet of water will only be accommodated under the present scheme inside at the cross wall.

Question.—And how many?

Answer.—It just depends upon their length.

Question.—I suppose one large steamer or two small ones?

Answer.—That is all.

Question.—Will there be a sufficiency of water at the cross wall for vessels drawing 28 feet to go in and out?

Answer.—Yes.

Question.—I see that Mr Boyd states in his letter of the 9th November last: "As some allowance must be made for loss by evaporation and leakage, if there were steamers in the Dock drawing 26 feet it would be necessary to hold the water to 14 or 15 feet above zero. In such a case, if the tide outside rose less than 14 feet, the gates could not be opened during that tide"

Answer.—That is true what you state there. The entrance to the Wet Basin will only be through a single pair of gates consequently those gates can only be opened when the water in the Basin and the water outside is on the same level. The tide changes here very rapidly at the top of high water. The gates have got to remain open sometimes an hour and sometimes an hour and a half. The level of the water in the Basin will be ruled by the water outside. If you have a very low tide and the water stands higher in the Wet Basin than outside reaches you cannot open the gates unless you open the sluice gates and lower the water in the Basin to the same level. Consequently, those gates cannot be opened during that tide.

Question.—Then I understand from you that ships of certain tonnage will not be able to go in and out at all high tides. There can be no dependence I suppose?

Answer.—There might be a chance with a strong westerly wind—a neap tide when the wind has been blowing down the St. Lawrence. There may be then a chance.

Question.—Of course then we could not depend upon ships of that class being accommodated, there as a regular rule?

Answer.—You could accommodate them if you had more water.

Question.—Can you with the depth contemplated ?

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Answer.—No, not with 26 feet of water.

By Mr CHABOT.—Is there any difference in the morning and night tides in the spring of the year ?

Mr Boswell here left to procure memoranda.

By Mr OWEN MURPHY.

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Question.—In the event of a 3 feet difference outside and inside, how long would it take with the sluice gates to equalize the levels ?

Answer.—I do not think you could do it.

Question.—You could not equalize the difference of 3 feet ?

Answer.—No.

By Mr SIMON PETERS.

Question.—Would an entrance lock obviate that ?

Answer.—Yes.

By Mr SHEHYN.

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Question.—Mr Boyd further states the tides are very irregular, there being sometimes a difference of 3 to 4 feet between the rise of the morning and the evening tides of the same day ; and he furnishes a record of 134 tides kept last summer between 1st June and 31 October, as follows, viz.--

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8	tides rose between 10 and 12 ft. above zero. (L. W.)
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With a uniform depth of 15 feet within the Wet Dock at low water mark how then can the tides, the average of which will certainly be less than 14 to 15 feet, be depended upon to permit vessels drawing 26 feet,—now that you have already settled the question of 28 feet,—entering and leaving daily the Wet Dock morning and evening at high water ?

Answer.—Of course you cannot depend on the tides as you know. The tides are affected here by a gale down the river. A strong easterly wind may pile up a tide until it stands 18 inches over the floor of our office as it has done more than once. That might happen in 48 hours.

Question.—I suppose we are to understand from your reply that it will be uncertain and unsafe for vessels drawing 26 feet to lay inside the Dock, except alongside the Cross Wall and vessels of that draft could not always be depended upon to leave at morning and evening tides if required ?

Answer.—No, if they wanted to go out on a particular morning, they might have to wait.

Question.—Dont you think that would interfere with the utility of the Dock supposing a Mail Steamer wanted to go out on a Saturday morning ?

Answer.—It is entirely due to the plan adopted. A single gate I may say very plainly will always be the cause of trouble and delay. I have no hesitation in saying it and you can only overcome it by building a lock. If you had a lock you could pass ships in from dead low water to top high water at any time. Vessels could pass in and out any hour of the day.

Question.—Do you mean a lock, such as the one contemplated by present plan.

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Answer.—That is another thing. That lock was contemplated only to accommodate the schooner traffic. So as to leave the entrance free to large vessels and not have it hampered with the smaller vessels that frequent the wharves. It was to give them a passage into the Basin free and independent. That was the object of the lock, —not to pass in the large vessels.

Question.—The idea of the lock has been abandoned, I understand ?

Answer.—I do not think it has been abandoned.

Question.—Do you think the lock is absolutely necessary for the passing in and out of the small craft ?

Answer.—I do, Sir.

Question.—And that you require all the time at your disposal to pass in and out large vessels by the main entrance gate ?

Answer.—I do, if in the future we are going to have a large traffic in and out. If the schooner traffic is to increase in the same ratio that the large vessels is to increase, we are going to be blocked with the schooner traffic. They will insist upon their rights.

Question.—Do you think that the construction of this lock would do away with a good deal of the difficulties that are likely to be met with ?

Answer.—I do, Sir. I think if the lock is made there would be times that it would not be necessary to open those gates during certain tides. We find that the schooners cannot go to the wharves—do not commence to go there along the

Palais until the tide has risen to 9 feet. That is the first time that a vessel will enter and the moment the tide has risen to that they are just able to crawl up, because the bank stands at the wharves 2 to 3 feet above low water mark, they then pass up with the tide until the tide has fallen giving from half flood to half ebb. The lock would just give that same number of hours accommodation plus one.

Question.—Is there no other plan to obviate this?

Answer.—Yes, by getting rid of the schooner traffic altogether.

Question.—I suppose in that case the single gate would be quite sufficient?

Answer.—It would barring the detention which might arise from the levels.

Question.—Do you not think there would be a good deal of difficulty if you have one large steamer coming in and another going out?

Answer.—I do not think any steamer—any large steamer would enter there without the assistance of tugs. A large vessel would enter there with very little headway of its own. It is too big a mass to have its own power on. The tug would guide her in and give her headway enough and so I think on a tide you could pass a large number of vessels that way.

Question.—Would you tell me what tide you could calculate upon as an average tide for the use of Wet Dock?

Answer.—About 14 to 15 feet, as Mr. Boyd has put it there.

Question.—If I understand right they say the highest tide in any case would not be more than 18 feet?

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MR. FORSYTH.—I do not think they say 18 feet in the Re-

Question.—What would be the average tide you could depend upon?

MR. PERLEY.—About 14 feet might be the average. A tide might run up and run a little out before we could close the gates. We are putting in large sluices for that purpose, through the swiftness of the current, we might calculate, when the gates are set upon an average of 14 feet although the tide has risen 15 feet.

Question.—Depending on that average then you would still have 42 tides below that—say about half the tides?

Answer.—I think not, quite so many.

Question.—If there is a difference of 3 and four feet between the morning and evening tides, if there was 15 feet in the morning it might happen there would be 12 in the evening?

Answer.—Exactly so.

Question.—Can you depend upon more than half the tides, to average 14 feet of water?

Answer.—I should say, yes.

Question.—What do you think would be the number of tides that you can depend upon as giving you 14 feet, and how many not?

Answer.—I am not able to answer that.

MR. CHABOT.—I see that this record has been taken at the very lowest period. There is always a difference of tide in

the morning and evening In the Spring of the year, we have the highest tide in the morning and in the fall of the year it is in the evening. I certainly corroborate that the average tide of 14 feet.

Question,—You have the record of so many tides,— could you depend on 14 feet for every one of those tides ?

Answer.—Oh ! No, Sir ; of course you could not because there are eight tides less, —I think, ten or twelve feet.

Mr Shehyn here read from a record of tides kept during the month of October.

Question.—According to this statement, half of this month gave lower tides than 14 feet ?

Answer.—Yes.

The record of tides kept in the month of June was then read by Mr Shehyn and he remarked that the month of June compared more favorably. There was only one tide in that month that fell below 14 feet.

In July there were eight tides less than 14 feet.

In September, there were six tides short of 14 feet. In August there were 9 tides less than 14 feet.

Mr PERLEY.— You will notice that those are evening tides.

Question,—From the record here we may calculate that fully a third of the tides, will be less than 14 feet ? There are a certain number in any case, and I may say a considerable number, upon which you could not depend upon giving 14 feet of water ?

Answer.—It is so stated there, Sir.

he year, we have
all of the year it
that the average

Question.—Were not plans prepared by Messrs Knipple and Morris for the completion of the Wet-Dock, and were they not abandoned?

y tides,— could
tides?

Answer.—Yes.

uld not because
veelve feet.

Question.—Was there any particular reason?

les kept during

Answer.—Because they were not in keep ng.

lf of this month

Question.—Was it not proposed by that plan to close or dam up the Wet-Dock by extending the Cross Wall to the foot of the cliff?

June was then
e month of June
one tide in that

Answer.—They would have had to drive a row of piles from the end of the wharf here (describing on plan) right across the vacant lots to the foot of the cliff and that was abandoned.

4 feet.

of 14 feet. In

e evening tides.

r calculate that
feet? There are
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Question.—Were there any particular objections to this plan?

Answer.—Yes, because you could never get rid of the sewage along Lower Town—you would flood all the cellars—flood St-Rochs, and you would have had a constant leakage at the Palais. The whole of the ground at the foot of the cliff and out St-Paul street and out to St-Andrew street is all made ground—has been built upon and filled up with street rubbish. It is more like a basket' On enquiry we found out with the extra high tides that the water gets here and there, (illustrating), and all the cellars are flooded along St. Andrew street. That is only due to extra high tides- If we put this dam across here, (illustrating), we just create a perfect pond underneath all those houses. The drainage would be cut off. There would be no chance of emptying the Upper Town sewage—the sewage that now emptied into the Harbour where the vessels now lie,—and we would never know where the water

was going to cease running at the western end through the Palais. It was to avoid consequential damages and land damages.

Question.—Of course we conclude from that, that the plan of Knipple and Morris of damming up by that wall was not considered in the interest of Quebec?

Answer.—Neither in the interest of the city, or its inhabitants, or the Harbour Commissioners.

Question.—Have not three plans been submitted by the Government Engineers to the Harbour Commissioners for the completion of the Dock?

Answer.—At the time when the last application was made by the Harbour Commissioners for a further loan for the works at Quebec the Minister of Public Works stated on the floor of the House, that he would have an examination made into the matters at Quebec by a Commission or, Board or something of that kind, and have it submitted to his colleagues. That Board was composed of Sanford Fleming and myself, for what we considered the improvements of the Harbour.

Scheme No. 1 was to build a water tight dam passing by the Gas house wharf down Leadenhall St., St. Andrews St, and so enclosing the whole of the area of the Basin watertight. We knew that the Cross Wall was watertight and we assumed that the works built on the Louise Embankment would be watertight at the depths shewn.

We then submitted a second scheme. To build a wall that would not increase the area of the Wet Basin in the slightest way. We thought then that by building a watertight wall on the Commissioners' line and dredging here (illustrating on plan)

end through the damages and land and filling in that we would then have a Wet Basin, that the Quay Wall would be double its length and larger revenue derived.

that, that the plan outside the Commissioners line into the Basin and leaving a second entrance near Dalhousie St., so that the schooner traffic could enter at all times of the tide, and enter into the wharves as they do now, leaving a channel.

ty, or its inhabi-

We recommended the third scheme.

submitted by the Question.—I am to understand then that the plan that you are in favour of was the extension of the inside wall leaving a channel between it and the present wharves?

ication was made Answer.—Yes.

ther loan for the Question.—What was the reason that led to the selection of the plan now contemplated to be carried out?

arks stated on the examination made of the plan now contemplated to be carried out?

tion or, Board or Answer.—That I am not aware of I am not able to answer that.

ted to his colleague that.

ord Fleming and

rovements of the Question.—Was it at the recommendation of the Government Engineer that the three plans were abandoned and the fourth one taken?

am passing by the Answer.—I prepared a fourth plan at the request of the Minister of Public Works combining the wall around St. Andrews St, and so watertight. We and we assumed Andrew Street in connection with the cross wall and a lock. kment would be

There are two reasons why that scheme seemed possible. First it left intact all the property to the northward of St. Andrew Street that is the wharves now passing or fronting in the slightest the Wet Basin and did not interfere, and so save bridges By watertight wall on the building of a lock it gave free access for the schooner traffic at all times of the tide.

ustrating on plan)

Mr Forsyth here stated that these three plans were discussed at great length at many meetings of the Commissioners. He said :—The reason why we abandoned the plan for building a wall in the Dock which was to go from here (pointing to plan), to the Gas Works, was because we saw that that was going to curtail the size of our Dock. The reason for not carrying out the other plan which would have necessitated our buying all that property, was simply because we had not the means of purchasing, and I have no doubt that was the most complete plan if we had the means of making the arrangements with the proprietors, for the taking hold of the property on the south side of the Basin. We had not the means of doing that, and we adopted the other plan for which, as you know, tenders have been called, and the matter is now under discussion. The reasons are because we thought in the first place it was the cheapest and that it would not interfere with any private rights at all, in fact it will improve all the property from here, (illustrating), to the Gas Works by giving them water at all tides, and, with perhaps two or three exceptions, the whole of that work can be built on public property, or on our own property.

MR SHEHYN—Question.—Will this plan which provides for the construction of the Quay wall in St-Andrew street give accommodation on this side of the Wet Dock for vessels drawing 28 feet of water ?

Answer.—Oh no Sir, that is only a dam,—nothing else in the world—vessels could not approach within 100 feet from that wall.

Question.—Then I understand this is simply for damming up the water and not intended to accommodate ships of a large tonnage ?

Answer.—No, not to accommodate ships that would draw one fraction of an inch.

Question.—At what distance from that wall in St-Andrew street can works be made to accommodate vessels of a large tonnage ?

Answer.—The work is not designed for that purpose. The work to be built there is nothing more than a dam with the sewerage.

Question.—Of course I understand now that it is not intended to use this side for the accommodation of large vessels according to the present plans ?

Answer.—According to the present plans, the Commissioners will only use their side of the works.

Question.—I know perfectly well that the Harbour Commissioners can only use what belongs to them. What I mean to say is.—If this South side remains private property, and with this wall you propose building will you hereafter be able to give accommodation to vessels drawing 28 feet ?

Answer.—Supposing we bought out all those wharves they could then put in some quays of the very cheapest description, hollow affairs with a little ballast in them—projecting jetties. That is the benefit that the wall in St Andrew street would give. There is no necessity of putting stone, concrete or any thing of that kind.

Question.—To what depth in that case could you dredge ?

Answer.—You could dredge to any depth, but always a distance of about a 100 feet from that wall and there would be no danger of leakage on that side as we have found clay all along St. Andrew street in the Dock.

Question.—So you think it will be possible to extend

harves a certain distance from St. Andrew Street into the Basin—what distance from the wall ?

Answer.—You could dredge up to within the limits of safety. The outside of the Railway embankment simply rests on the bottom. They have a right to that. You could not put a ship up to have the bows stretching over the street say 50 or 60 feet within the limits. Within that distance you could dredge all right.

Question.—You could dredge withinto 100 feet to enable large ships to come up ?

Answer.—Yes, you never want to dredge any closer.

Question.—I understand that at present it is the policy of the Commission at any rate to make no works of a permanent nature except this wall on the South side

Answer.—They do not intend to do any further works only the works necessary to make their basin tight.

Question.—What will be the cost of the wall in St. Andrew street ?

Answer.—\$220,000—an estimate made two or three years ago. It may vary at the present. It may cost a quarter of a million without land damages. There are certain properties that the Commissioners must obtain,—two openings in St. Andrew street must be closed, ponds etc.

Question.—Is the plan decided upon to finish the Wet Dock the best plan ?

Answer.—It is the cheapest to close in the Wet Dock.

Question.—Would it be the most advantageous and the most acceptable in view of the wet dock ?

Answer.—I am not prepared to answer that.

Question.—Do you not think it would be preferable in the public interest and prove perhaps to be the most economical in the long run to leave the Quay Wall,—Louise Embankment—as it stands to be used by the class of vessels which it was originally intended for,—to build the South Wall as provided for in one of the plans submitted by the Government Engineers, by which the necessary accommodation and depth of water will be given on this side of the Wet Dock for ships drawing 28 feet of water—to dredge the basin to a uniform depth of 18 feet below low water mark, which is the depth over the sill of the entrance gate,—and thereby to develop the full capacity of the wet dock without further delay?

Answer.—That just means all the difference between one quarter of a million and a million and three quarters. That is what you have got to face to carry out that scheme which you are now proposing. The only question is the question of money. There is no doubt if you have the money to build a South wall there down to 28 feet you would be doubling the area of the available wharfage, the whole area of the Wet Basin, and doubling its capacity. Against that is the great question of cost. And that is a question too without any land damages. To build that scheme, and to do all the dredging—Mr. Perley here refers to notes and corrects himself saying: I am a little wrong. It is a million and a quarter instead of three quarters. That does not provide for the purchase of private property between Leadenhall street and St. Andrew street. The Commissioners would have to buy all that property.

By the MAYOR, Question.—Then I understand that the difference is only one of cost, between the wharf now contemplated and the wharf that could accommodate large vessels?

Answer.—Yes.

Question.—And to add to that the purchase of the land ?

Answer.—Yes.

By the MAYOR. Question.—You do not take into account the amount that these properties would be worth to the Commissioners ?

Answer.—No. You are simply asking costs. I am not taking the revenue.

By Mr SHEHYN.—In your opinion, Mr Perley, to complete that Dock in a proper way and to make it a first class dock so as to give as full accommodation as it is possible to give, do you think if the Commission had the money that the plan of giving us a larger area on this south side would be certainly the most advantageous for the interest of the port of Quebec.

Answer.—If they had the money, yes Sir. If they had two million dollars, they could shove their boundary line further to the Southward, increase the area of the basin and put in a lock entrance. Under these circumstances, there would be no finer dock in the world.

Question —According to the present method of completing it our dock will be an incomplete dock ?

Answer.—I do not say that. This is complete so far as the scheme goes.

By the Mayor. Question.—It is an inferior scheme ?

Answer.—Yes.

Question.—It would be much inferior ?

Answer -- Yes, but not incomplete.

The Commissioners are cutting their garments according to their cloth.

Mr Shehyn here thanked **Mr. Perley** for the manner in which he had answered the questions submitted to him.

The Mayor.—There is one point on which I would like information. You have mentioned the advisability of constructing a lock for large vessels. I take it to be your opinion that if it was possible considering the financial resources of the Commissioners, it would be in the interest of the Dock to have a lock for large vessels,—how much would such a lock cost?

Answer.—About three quarters of a million. It would cost as much as the Graving Dock. It would have to be 550 feet at least between the gates. It would have to be built with double gates so as to allow for the unequal rise and fall of the tide. The foundations etc would be expensive. I think it is only fair to say that this question of a lock entrance has never been broached to the Commissioners, spoken of by them, and comes entirely from myself. It has never been spoken of to the Commissioners, they never spoke of it to me and we have never discussed the matter. I only think of it when you come to speak of the perfect dock which **Mr Shehyn** wants.

MR. SHEHYN. Question.—I suppose it is clear enough that we can only accommodate one or two ships at a time in the Wet Dock drawing 28 feet of water?

Answer.—That is under the present circumstances,—laying at the Quay Wall.

Question.—And you can only pile drive at a distance of 40 or 50 feet?

Answer.—Yes. I may say that a platform or boom may be laid to keep vessels off from the Quay Wall. It has been done where they have made a boom or fender and kept them off. It has happened in Harbours where they have had to do it,—large vessels lying from 40 to 50 feet from the Quay Wall.

Question.—It is only a makeshift?

Answer.—It is only a makeshift, I know.

Question.—Even admitting that you can dredge 40 feet from the Quay Wall with 15 feet of water, you cannot accommodate ships of 28 feet, to be depended upon?

Answer.—No but you might get an extra foot or two sloped away in dredging.

Question.—You would have to slope again from the 40 feet?

Answer.—Yes,

Question.—Do you consider that if you were obliged to pile drive 40 feet do you consider it a first class work for a Dock such as we have been building? If the plans were now to be made over again would it not be provided for in a different way than what has been done?

Answer.—Certainly it would. Ten years have elapsed and things have changed since then.

MR SHEHYN.—We understand now pretty well the nature of the accommodation we may expect from this Dock and it is not necessary for me to ask any further questions on the matter. So far as I am concerned I have exhausted myself.

The Hon. John Hearn being called on arose and said—I am sure that I in no way misinterpret the feelings of the

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Quebec gentlemen present when I say they are thankful for the information conveyed by Mr Perley's straight forward answers to the questions submitted to him by the Mayor and the Chairman of the Board of Trade

I may also venture to say that the views which I have expressed in the City Council in connection with the Harbour Works have been fully borne out by all that has taken place here this morning. I protested in the Council against matters so important to the present and future of Quebec being done in the manner then proposed. I took action which led to agitation and ventilation of the subject and thereby contributed to the prevention of a plan being carried out which has, according to the information received to day, been very wisely abandoned. Had there been no action taken in the matter, and the City Council kept silent on the subject, all the probabilities are that a repetition of the blundering in which these important works were first conceived, and for a long time carried out, would have taken place.

The action taken by the City Council led to that ventilation, to that discussion, and to that consensus of opinion which have resulted in a complete change of base. The plan which it is now admitted should be the least acceptable to Quebec, and perhaps I should say to the country, had been adopted. It is one of the three plans which Mr. Perley and Mr. Fleming laid before the government, and though the least acceptable, it was resolved that the works should be completed in keeping with it. Now, however, the next best plan to that has been decided upon, but the best plan of all, no one appears to contemplate carrying out. Of course we must keep in mind, that we are dealing with Quebec, the old historic City of Quebec, whose future in the judgment of some of the Harbour Commissioners is of the brightest kind; yet, though accommodation is to be afforded, as regards

depth of water, for vessels of the largest tonnage to go to Montreal, care is taken that like accommodation is not to be given to such vessels for business at this port.

MR. PERLEY has stated that the Lake St. Peter improvements when completed will afford safe passage for a vessel drawing 27 feet. She will be able to go to Montreal, lay at the quays, jetties or wharves there, discharge and take in her cargo. In this city, which was the greatest sea port of the Dominion, the cradle of refinement, of education and business when Montreal as regards shipping was in its swaddling clothes, this old city, notwithstanding the bright things expected for it, is not to be provided with any such accommodation. We spend money here to a very large amount, but care is taken that it be spent in a way not to secure that accommodation for vessels of a large draught of water that has been provided for them to go through Lake St. Peter.

Reflect now for a moment and call to mind Mr. Perley's remarks when he said that, if the plans adopted ten years ago had to be adopted now, they would be of a very different character. Such reflection will lead you, I am sure, to concluding what it is possible the requirements of ten years hence may call for. By taking warning from the blunders of the past you may save yourselves from falling into like blunders again. Unfortunately for the country we are always subscribing to a greater extent than we ought, to the miserable doctrine of "Cows far off wearing long horns." One needs, forsooth, go across the herring pond, ignore our own scientific men, and seek Engineers in the old country. The result of that folly ought to be a warning to us and what we should determine upon now, in my mind, resolves itself into this, that the people of Quebec, represented here to-day, should not be satisfied, with a second class article. Should not be satisfied with any plan of completing their docks other than the very

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best plan. We have it from the highest engineering authority in the country, from the gentleman in whose engineering skill the Government places unbounded trust, that the plan we are about carrying out is by no means the best plan—that it will not afford more than one half of the area for the use of ocean steamers and sailing vessels that the improved or best plan would furnish.

The adoption of the best plan would involve, it appears, a million and a half dollars more of expenditure, but an important factor appears to be lost sight of in the calculation made, and it is this—What increase of revenue would you have from the works by the adoption and execution of the best plan ?

In order to make our calculation correctly we must take into account that, if the expenditure be more, the revenue would also be more, and that the capital which the increase in revenue would represent, should be placed in the scales against the additional expenditure. My argument I think will be admitted by all gentlemen not prejudiced in this connection and, fortunately, there is no one here that has any prejudice in the matter. I do not say that any jealousy exists in the minds of the public men of this country regarding Quebec, but I do say that if the government of the country carry out any other, than the plan which in the opinion of its own engineers is the best for our Port, that then a great wrong will be done to Quebec and the chances of benefitting the country at large be decreased. If a vessel coming here drawing 27 feet of water cannot find room in our Dock to discharge and take in cargo, she will proceed to Montreal, and we will have only the pleasure of seeing her as she goes by our doors.

Now, Mr Chairman, should we be content in the face of what we have learned here to-day ? I think not. We have one common interest in view. We should be influenced and anima-

ted by it, and should not rest on our oars and be content with any other than the best plan. As a pilot coming up or going down the gulf, takes the lights and the buoys for his guide, so I take the opinions of men like Mr Perley when I speak on these matters. I do not venture to say "*this* lock is not wanted here—let it stand in abeyance." The government proposed to make matters a little better for Quebec but notwithstanding, Harbour Commissioners, stood up and said : —We don't want the lock built. I am sorry that the gentlemen who pronounced themselves in this manner are not here to-day. In the Old Country and in the Democratic Country, alongside of us, on occasions of this kind, you find foremost men in trade and shipping present. Here you find gentlemen attending the ordinary conferences of the Commission, but on a matter of this prominence, the moving spirits, the prevailing geniuses of the Body absent themselves. The snow has perhaps prevented their attendance. Be it what it may, it should be known that the people of Quebec expect them to be on hand when matters of this kind are brought up, that they may hear what is said, know the feelings of the people, and judge whether they should concur with the people in asking for what they think right, or whether they should dissent from them.

I shall not trespass further on your time. I had sincerely hoped that in looking at the question of expenditure, particularly when coming within a million and a half dollars, sight would not be lost of the very much greater revenue to be derived by the execution of the better works, and wrong doing be avoided. I will not make use of arguments that I think might, and may on some other occasion, be brought forward to show the unfairness, the terrible unfairness of the manner in which this port of Quebec has been treated.

The chairman, Mr Forsyth, drew the speaker's attention to

the fact that the action of the Government should be left out at a meeting of this character.

Mr Hearn said that he was aiming to show what it was our interest to have, and if he could only impress on those present that these interests were being neglected, he thought that that appertained to the point at issue.

The speaker continued :—I say that we have not been treated as we ought to have been. I do not say this so much to censure the government as I do to condemn our own apathy and silly enny of one another. I think that it rests a great deal with ourselves whether or not we shall have the dock completed in the way that according to Mr Perley it should be. There is no justification for not completing it in the most desirable way, and I think I am justified in saying that the question of expenditure ought not to weigh so seriously with us as to keep us from agitating and demanding through all fair and legitimate channels that the dock be completed in the way declared to be the best, by the government's own engineers. In this connection, I may be allowed to make reference to an idea which was given expression to by the Mayor at a recent meeting. He said there was very great reason to believe that at no distant date, the Lake St. Peter debt and much of that contracted for the improvements in the port of Montreal would have to be assumed by the Government, and such being the case, it ought to follow that the debt of the Harbour of Quebec would also have to be assumed by the Government. The Dominion assuming these debts, Quebec would be blind to its own interests if its people were not to seek for the adoption of getting the best plans, regardless of the objection which has been made on the score of cost.

Mr. Forsyth here rose and said : The plan which will be

now carried out by the Commissioners will not in any way interfere with acquiring that property and building wharves and docks hereafter but ; until we get the money there will be no use of our talking about going into an expeditive of four million. I think on the occasion referred to by the Mayor, the " Peruvian " was only drawing twenty-two feet coming from Montreal although they had poles out to show they could carry down to 25. We must all see that that this dock will be quite able to take in vessels that are coming for the present and when we get those large steamers drawing 27 or 28 feet we have accommodation for one or more and by that time I hope the Commissioners may be in a position to enlarge the dock and probably acquire the property on this side of the River. As far as the Commissioners are concerned I say that they considered those plans very often and had many meetings thereon.

At this point a short discussion arose between the Chairman and Mr Hearn as to the construction placed on some utterances of the former about approving of the plans.

Mr Forsyth : I had only intended to say that the work we have in contemplation and are going to carry out will in nowise interfere with future works to be built there. You must have sewerage, and that we are going to give the City. It is not interfering with private property now.

Mr. Hearn : I am sorry my friend should narrow the question at all. I take the broad view that if the money of this Country is to be spent for deepening Lake St Peter to enable ships drawing 27 feet of water to proceed to Montreal that the people of Quebec should put forth their best efforts to have the Dock completed in a way to afford as good accommodation for that class of ships to do their business here. My friend (Mr. Forsyth) thought well of correcting me for saying that

the Harbour Commissioners had consented to the plan which is now admitted to be the worst and which has been abandoned because it was so objectionable. The Government adopted that plan and did not ask the Harbeur Commissioners' opinion upon it at all, but whether or not it would have been carried out is a question on which there may be differences of opinion. The Harbour Commission never adopted the plan for they were never asked to pronounce upon it, but they did not, as I think they should have done, enter their protest against it.

One other point I would like to refer to, is the booming of ships off the Embankment. We know that between Ports, as between individuals, there is always more or less rivalry. If accommodation is to be found for vessels at the Louise Embankment only by booming them off, I say that the men interested in the rival port will not be slow to point out the additional expense to merchants by their vessels having to throw their cargoes from slings for a distance of 40 to 60 feet, as compared with that of vessels laying alongside the quay. Of course in the one case it is Quebec—in the other Montreal, and it is unfortunately too often believed that anything is good enough for Quebec. Harbour Improvements or anything else.—It is for Quebec, and not only must it be second hand but a lifetime has to be passed over before it is brought to a completion. Vigilance, a good authority tells us, is the price of liberty. Quebecers would do well to remember that it is also the price of material and moral advancement.

Mr Owen Murphy. Assuming with this sewerage wall which is involved in this plan will you convey to us any idea of the approximate or probable time when these these works will be brought to a close under these plans or if the present generation will see their completion?

A.—Two years.

Q.—Two years from the commencement of this contract or two years from now ?

Mr. Forsyth. Two years from now.

Mr. R. Turner. From that I understand that the work will be completed next season ?

A.—Not the work we are going into now. It will be two years from the signing of the contract, two seasons.

Mr. Murphy. The Docks will be completed in the opening of 1889, is that the idea ?

Mr. Perly.—There is a date fixed in the specification.

MR. TURNER.—Would not that quarter millim dollars which this dam is to cost—would it not be saved by building this wall. I am speaking of that wall which you (Mr. Perley) proposed that would necessitate the purchase of private property ?

Answer.—Of course there is no necessity of building the wall, only the necessity of spending fifty or sixty thousand dollars in building an independent sewer. To build an independent sewer it would cost about fifty or sixty thousand dollars.

MR. PERLEY.—The date fixed by the specification for the completion of the work is the 31st October 1888.

By the Mayor.—Could this work be proceeded with this winter ?

MR. PERLEY.—No, Sir.

MR. MURPHY.—A report has been put in circulation that the labor interests have been very much interfered with in consequence of the bringing about by the authorities of the City and the Council of the Board of Trade of this meeting. The Board of Trade and City Council have been actuated by a desire in bringing about this conference with the Harbour Commissioners to be enlightened and enlightened we have been in a very intelligent manner. In moving in the direction we did move and arriving at the satisfactory feature which presents itself here to day I feel that our work was a landable one and one that should receive the economiums of the public. A report has been put into circulation that the interests of our unfortunale laboring class of this City who are in need of employment has been interfered with from Montreal in the delay in not giving out this contract immediately. They have a grievance and the Mayor will as I understand give you an idea of what occurred yesterday.

The Mayor: I received a deputation yesterday, accompanied by some parties not belonging to the labor organization and they reproached me with being an obstructionist. They informed me they had been most distinctly and positively told that if it had not been for me that the new Work would have been commenced yesterday and proceeded with without intervention. I said your informants are simply laughing at you. I further told them I did not see how work of that description could be proceeded with during the winter.

Mr. S. Peters. I differ from Mr. Perley in saying that this work could not be done this winter. There is a great deal of cutting through walls and removal of stuff during the winter if the contract could be given out at once.

Hon John Hearn here scathingly criticised the opinion given by Mr Peters as against that of Mr Perley.

Mr. Peters. I am a practical man of 46 years experience.

Mr. Hearn.—Does that prove that your opinion is not immensely inferior to Mr. Perley's?

Mr. Peters. No. A great deal of cutting away and removal could be performed this winter. I do not think Mr. Perley will differ with me on this point.

Mr. Perley. I must differ with you most completely. The whole of St Andrew street is crib work and it is flooded twice in 24 hours. You could only cut five or six feet and there you are frosted right up. You are only going to open a little of St Andrew street and your operations will stop.

After going into some of the details of the contract Mr. Perley continued:—If you are going to open the whole length of that street at this time of the year, throw embankments up on each side you are not going to advance the work one bit you will do no service but harm as you can only remove 4 or 5 feet and there it will remain until the snow has gone. I say this honestly, and I have had forty years experience of it. I have been on the Contractors side of the house too—not Engineering all the time.

Mr. Peter. With all due deference had I the contract for this work I certainly would commence it at once.

The Mayor.—I understand from the explanations given by Mr. Perley that he thinks the plan adopted is not the best one of a first class quality but in the future we might have that plan carried out. Supposing in the future it is desired to improve the dock and make wharves along the south part fit to accommodate the largest ships would the works that are to be carried out with the exception of the sewer.—Would the dam that is to be built be at all necessary supposing a wharf

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was to be built hereafter? To my mind it seemed quite clear that the \$200,000 represent the exact cost of the dam, not taking into account the sewer?

MR. PERLEY.—The sewer is built in the Wall and incorporated in the wall—An independent sewer would cost that fifty or sixty thousand dollars.

By the Mayor. Question.—I understand that \$200,000 of the money that is going to be spent will be wasted if it is decided hereafter to make the dock a first class dock, that dam will be of no use with the exception of the sewer inside of the wall.

MR. PERLEY.—I think you are a little mistaken. If in the future it is desirable to improve the southern side of the Wet Basin you have got all the work in the southern Side that you want you don't want to build a stone wall or anything of the kind. It would be desirable to remove all those old wharves and build a series of jetties into the Harbour. If you look at the basins in Liverpool and on the Clyde you will find ships lying moored in the centre of those basins. The southern side may be improved by building a series of cribworks or piers of the cheapest possible construction.

The Mayor here rose and moved seconded by Mr. Shehyn a vote of thanks to Mr. Perley for the satisfactory explanations given by him on all the points submitted.

Mr Hearn said: I am quite satisfied, Mr Chairman, that never were thanks such as are now proposed better merited. We have had from Mr Perley what might be expected from a man of his high standing and reputation. It remains to be seen whether those wishing our city God speed, will keep well in mind what he has told us and be guided and

influenced by it. He has said that, though we are getting what may be considered for the wants of the day tolerably fair improvements, we are not getting the best. It behoves us therefore to keep in mind our duties, as Citizens of Quebec, and whether or not we could by a united effort, be able to bring about the profitable results that should spring from this conference.

The Chairman then put the motion which was adopted with acclamation.

Mr. Perley in returning thanks said : My presence here to day and what I have said has only been on the strict line of my duty as Chief Engineer of the Harbour Commissioners of Quebec.

After a vote of thanks to the Chairman Mr. Forsyth the meeting terminated.

